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REMARKS

As requested, the specification is amended to contain a reference to the prior applications. The undersigned avers that the amended paragraph of the specification does not contain any new subject matter.

Claims 1-7, 9-17, 19, 20 and 21 are rejected under 35 U.S.C. § 102 as anticipated by Neville et al. '636, claims 8 and 18 are rejected under 35 U.S.C. § 103 over Neville et al. '636 in view of May et al. '251, and claim 21 is rejected under 35 U.S.C. 102 over Cooper et al. '907. The Examiner has also rejected claim 21 over claim 1 of U.S. Patent No. 5,735,744 under the judicially created doctrine of double patenting. The Applicant acknowledges and respectfully traverses the raised rejections in view of the following remarks.

First considering the present invention as recited in independent claims 1 and 11 as amended herein above, the present invention is directed to a system for controlling use of program related element in a user system connected from a host system through a communications network. The program related element includes a program, data or a combination of a program and data and is stored in the user system that either executes the program associated with the program related element or operates on the data associated with the program related element, or both.

According to the present invention, the user system includes a memory for storing the program related element and an associated access definition that includes a period of use definition defining a period in which the user system may access the program related element. An access controller in the user system responds to requests by the user system for access to the program related element by checking whether the associated access definition requirements are met, including whether the user system request is within the period of use definition. When the access definition requirements are met, including the period of use definition, the access controller generates a request to the host system for access to the program related element. The host system responds to the request for access to the program

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related element from the user system by providing to the user system an authorization key granting access to the program related element. The access controller then uses the authorization key to provide access to the program related element to the user system.

Therefore, and while the specification and drawings of the present Application disclose several variants upon a basic system embodying the fundamental elements of the present invention, independent claims 1 and 11 have been amended herein above to more explicitly focus on these fundamental aspects of the present invention. For example, in the system of the present invention all of the program related element or elements reside in the user system, after being initially loaded therein from, for example, the host system or another system, rather than being loaded into the user system each time the program related element or elements are to be accessed.

Further in this regard, the access definition that defines all of the conditions that must be met for the user system to be granted access to the program related element likewise resides in the user system and, of particular note with respect to the present invention, includes a period of use definition defining a period in which the user system may access the program related element.

In addition, it must be noted that in the presently claimed embodiment of the invention as recited in amended claims 1 and 11 that, because of the above aspects of a system of the present invention, the operations executed in determining whether a user system may have access to a program related element resident in the user system may be completed entirely within the user system. In particular, and because the access definition requirements, including the period of use definition, are stored in the user system, the determination of whether the request for access is submitted within the defined period of use may be executed entirely within the user system and without reference or communication with the host system. According to claims 1 and 11, the user system will transmit a request for access to the program related element to the host system only if the user system at least meets the period of use limitation,

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thereby significantly reducing the required communication traffic between the user and host systems.

It will be noted, however, that the final arbitration of whether the user system gains access to the program related element still lies with the host system and the user system will actually have access to the program related element only when the host system provides the necessary authorization key in response to the request. The system of the present invention may thereby provide any necessary desired level of independently and separately confirmed security, but with the minimum network traffic. It will also be recognized that the host system may still demand additional authorization related information from the user system to compare with a host system resident copy of other elements of the access definition requirements. Even in this implementation, the system of the present invention will reduce the network traffic by eliminating requests to the host system from user systems who have exceeded their period of authorization, which will probably be the most common grounds for denial of access to the program related element.

Next, referring to Neville et al. '636, Neville et al. '636 is distinguished from the system of the present invention for a number of fundamental reasons. First, and for example, not only are the programs to be controlled, that is, the program related elements, distributed to the users from a server/clearinghouse, but the server/clearinghouse also controls all aspects of issuing authorizations to access the controlled programs, including all steps in determining whether a particular user should be allowed to access a controlled program.

More specifically, a user system provided with a copy of a controlled program will submit a request to access the program to the server/clearinghouse system and that requests will include all of the information required to determine whether the user should be granted access to the program. For example, a request will include an identifier compounded of an identifier assigned to the user and program by the client/clearinghouse system and an identifier generated within the user system and particular to the specific configuration of the user system.

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Upon receiving a request from a user system, the server/clearinghouse system will determine whether the user system meets the requirements to be granted access to the controlled program and, in particular, determines whether the request was received during a period defined by a period of use definition stored and resident in the client/clearinghouse system. If the user system meets the requirements to be granted access to the controlled program, the server/clearinghouse system will transmit an authorization/decryption key to the user system which will use the key to gain access to and execute the controlled program.

It will therefore be apparent that, in fundamental contrast from the system of the present invention, essentially all of the operational steps necessary to determine whether a user system should have access to a controlled program are executed in the server/clearinghouse system instead of in the user system.

For this reason, and in further distinction from the system of the present invention, the Neville et al. '636 system stores the period of use definition in and only in the server/clearinghouse system and not in the user system, as in the system of the present invention.

It must also be noted that in the Neville et al. '636 system the use of a defined period of use as an access control factor is only a relatively small part of the security features. The Neville et al. '636 system instead largely depends upon complex operations on the controlled program code and the user system functionality for security, such as the extraction and encryption of selected portions of the controlled program code, so that a decryption key is required to return the code to a usable form, and disabling of the user system operating system functions dependent upon the decryption of replacement operating system code and tables.

Because of the basic differences between the Neville et al. '636 and the system of the present invention, and because of the complexity of the Neville et al. '636 security functions, the Neville et al. '636 system is a three processor system that includes an original host, the server/clearinghouse system and at least one user system. According to Neville et al. '636, the

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controlled program is created in the original host system and is passed to the server/clearinghouse system which modifies the controlled program in accordance with the Neville et al. '636 security methods, distributes the controlled program to the user systems, and performs all authorization processes to grant permission for a user system to use the controlled program.

In basic contrast from the Neville et al. '636 system, the system of the present invention requires only the host system, which distributes the program related element and the access definition requirements including the period of use definition to the user system and that issues an authentication key upon receiving a valid request from a user system. According to the present invention, the user system rather than a host or server/clearinghouse system performs the basic and essential authorization checking functions, including determining whether the user system is requesting access to the program related element during the defined period of use. Unlike the Neville et al. '636 system, therefore, the system of the present invention does not require communication between the user and host systems for each request by a user system. Instead, and because in the present invention the period of use definition check is performed by the user system rather than by a host or server/clearinghouse system, the system does not require user/host communications for all requests but instead requires user/host communications only for requests occurring within the defined use period of a given user system.

It is therefore the belief and position of the Applicant that the present invention as recited in independent claims 1 and 11 as amended herein is fully and patentably distinguished over and from the teachings and suggestions of Neville et al. '636 under both 35 U.S.C. 102 and 35 U.S.C. 103. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claims 1 and 11 over Neville et al. '636 under 35 U.S.C. 102 and 35 U.S.C. 103, and the allowance of claims 1 and 11 as amended herein.

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Further in this regard, claims 2-10 are dependent from claim 1 and claims 12-20 are dependent from claim 11, so that claims 2-10 and 11-20 incorporate all recitations and limitations of claims 1 and 11 by dependency therefrom. It is therefore the belief and position of the Applicant that dependent claims 2-10 and 12-20 are also fully and patentably distinguished over and from the teachings and suggestions of Neville et al. '636 under both 35 U.S.C. 102 and 35 U.S.C. 103 for the same reasons as were discussed above with regard to claims 1 and 11. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claims 2-10 and 12-20 over Neville et al. '636 under 35 U.S.C. 102 and 35 U.S.C. 103, and the allowance of claims 2-10 and 12-20.

Now considering May et al. '251 and the rejection of claims 8 and 18 under 35 U.S.C. § 103 over Neville et al. '636 in view of May et al. '251, claims 8 and 19 are dependent from claims 1 and 11, respectively, and recite that the period of use of the program related element is bounded and defined by a beginning date and time and an ending date and time.

First, it must be noted that because claims 8 and 18 are dependent from claims 1 and 11, claims 8 and 18 incorporate all recitations and limitations of claims 1 and 11 by dependency therefrom. As a result, and as discussed above, claims 8 and 18 are fully distinguished over and from the teachings of Neville et al. '636 under the requirements and provisions of 35 U.S.C. 103 for the same reasons that claims 1 and 11 are fully distinguished over and from the teachings of Neville et al. '636 under the requirements and provisions of 35 U.S.C. 103.

In addition, and because May et al. '251 does not provide the teachings by which claims 1 and 11 are distinguished over and from Neville et al. '636, which have been discussed in detail above, the combination of May et al. '251 with Neville et al. '636 does not and cannot teach the present invention as recited in claims 1 and 11. For example, it is taught in column 10 of May et al. '251 that the remote manager entity residing in the MIS (host) computer will activate a user computer to access and use the software by downloading a message or page containing the authorization and beginning and ending dates and times defining a period in

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which the user computer may use the software. The beginning and ending dates are then used in the user computer to activate a "coupon", which is essentially the complete authorization for the user computer to use the software for the period defined by the beginning and ending dates and times. Thereafter, the authentication process by which the user computer's right to access and use the software requires only that the user computer check whether the request is in the period between the beginning and ending dates and times recorded in the "coupon". In complete contrast from the present invention, the user computer does not need to submit a request to a host computer for an authentication key, so that the May et al. '251 system is relatively much less secure than the system of the present invention.

It is therefore the belief and position of the Applicant that the present invention as recited in claims 1 and 11 is fully distinguished over and from the teachings of Neville et al. '636, of May et al. '251 and of Neville et al. '636 in view of May et al. '251 under the requirements and provisions of 35 U.S.C. 103.

For these reasons, therefore, the Applicant respectfully requests that the Examiner reconsider and withdraw all rejections of claims 8 and 18 over Neville et al. '636 in view of May et al. '251 under the requirements and provisions of 35 U.S.C. 103, and the allowance of claims 8 and 18.

Next, considering the rejection of claim 21 under 35 U.S.C. 102 over Cooper et al. '907, it must be noted that the present Application is a child Application of preceding parent Applications. It must also be noted that the elements and aspects of the present invention recited and claimed in claim 21 were not introduced into the present Application with the filing of the present Application, but originally appeared in parent U.S. Patent Application Serial No. 08/555,400 filed November 9, 1996 and issued as U.S. Patent No. 5,735,744 and that the present Application claims benefit of priority from that parent Application as well as earlier parent Applications. For this reason, it is the belief of the Applicant that the subject matter at

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issue in the present Application predates the Cooper et al. '907 reference such that Cooper et al. '907 is not a correct prior art reference with respect to the subject matter of claim 21.

It will also be noted that the Applicant has amended claim 21 in accordance with the above discussed aspects by which the present invention is distinguished over Neville et al. '636 and May et al. '251 under the requirements and provisions of 35 U.S.C. 103 and 35 U.S.C. 102 and it is the belief and position of the Applicant that claim 21 is fully distinguished over and from Cooper et al. '907 for the same reasons. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw all rejections of claim 21 over Cooper et al. '907 under either or both of 35 U.S.C. 102 or 35 U.S.C. 103 and the allowance of claim 21 as amended herein.

Lastly, considering the rejection of claim 21 over claim 1 of U.S. Patent No. 5,735,744 under the judicially created doctrine of double patenting, it will be noted that because of the above discussed amendments of claim 21, claim 21 is fully distinguished from claim 1 of U.S. Patent No. 5,735,744 under the requirements and provisions of both 35 U.S.C. 102 and 35 U.S.C. 103. The Applicant therefore respectfully requests that the Examiner reconsider and withdraw the rejection of claim 21 over claim 1 of U.S. Patent No. 5,735,744 under the judicially created doctrine of double patenting, and the allowance of claim 21 as amended herein.

Next considering the oath and declaration, the Examiner has stated that the priority dates presently stated therein, and in the Cross References to Related Applications in the specification, do not match the Patent Office records. In response, the Applicant has amended the Cross References to Related Applications to reflect what the Applicant believes to be the correct chain of priority and encloses a new unsigned Declaration and Power of Attorney form which contains the correct priority information. This form should be signed in the near future and will be forwarded to the United States Patent and Trademark Office once this is completed.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

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In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the ****[name reference(s)]** references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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